

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Inquiry Regarding Carrier Current Systems,)	ET Docket No. 03-104
Including Broadband over Power Line Systems)	

COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.

Qwest Communications International Inc. (“Qwest”) respectfully submits these comments in response to the Federal Communications Commission’s (“Commission”) *Notice of Inquiry* (“*NOI*”) in the above-referenced proceeding.¹ In this proceeding, the Commission seeks information regarding technical and other issues raised by the implementation of Broadband over Power Line (“BPL”) systems. As Qwest explains below, the Commission should require the proponents of BPL -- those who hope to provide it on a commercial basis -- to demonstrate that they have addressed and resolved all potential safety and technical issues and concerns before they are permitted to provide the service to “live” customers. These providers must demonstrate that they have designed -- and will implement -- their BPL offerings such that they will not interfere with existing services and will not raise safety concerns, either for customers or for service technicians.

The Commission must also resolve how it will treat BPL providers for regulatory purposes. In doing so, the Commission must consider the impacts of that regulatory regime on the legitimate concerns of other providers. Specifically, the Commission must take steps to

¹ *In the Matter of Inquiry Regarding Carrier Current Systems Including Broadband over Power Line Systems*, ET Docket No. 03-104, *Notice of Inquiry*, FCC 03-100, rel. Apr. 28, 2003.

ensure that BPL providers do not improperly leverage their monopoly over the distribution of electric power to the benefit of their competitive BPL service.

When the Commission has resolved these regulatory, technical and safety issues, BPL will provide yet another competitor in the already-thriving market for the provision of broadband service. As explained below, the advent of BPL provides yet further reason to treat incumbent local exchange carriers (“ILECs”) as “non-dominant” carriers in their provision of broadband services. It also provides further evidence of the need not to apply the Commission’s Computer II/III rules to the transmission component of the ILECs’ bundled Digital Subscriber Line (“DSL”) services.

I. THE COMMISSION SHOULD REQUIRE POTENTIAL BPL PROVIDERS TO DEMONSTRATE THAT THEY HAVE ADEQUATELY ADDRESSED ALL FORESEEABLE TECHNICAL AND SAFETY ISSUES AND CONCERNS BEFORE GRANTING AUTHORITY TO PROVIDE THAT SERVICE ON A COMMERCIAL BASIS.

As the *NOI* notes, the introduction of BPL service raises potential safety and interference issues. No one yet knows the precise nature and scope of these issues, and the Commission’s decision to gather information is entirely appropriate at this point. Below, Qwest sets forth its current understanding of those issues, which is necessarily incomplete. Once the Commission completes its fact gathering process, it must place the burden on prospective BPL providers to demonstrate that they have identified and addressed all foreseeable safety and interference issues. As the ones who stand to reap the financial rewards from BPL, prospective providers must ensure that their service will cause no harm to their customers, other providers, or their technicians.

One set of issues derives from the need to install “high-pass” filter circuits on utility poles. Because low-voltage distribution transformers cannot pass a broadband signal, the

provision of BPL will require the use of filter circuits to strip the broadband signal from power distribution facilities and hand it off to the drop wire serving an individual customer. To avoid disaster, these filters must obviously be designed to ensure that high-voltage current cannot appear on the low-voltage facilities within the premises. Beyond that, however, the size and shape of these devices is not now known. The Commission must ensure that the filters are designed such that they can be placed on utility poles without interfering with the facilities of other providers and without endangering their technicians, who will necessarily work in close proximity to these filters.²

The Commission must require prospective BPL providers and/or their equipment suppliers to present their high-pass filter(s), along with documentation of test results establishing that they have resolved these concerns. That documentation must be made available for review and comment by all interested parties, including other telecommunications providers. The Commission may then wish to undertake its own testing regimen to validate those results. The Commission might well conclude that it should implement technical and performance standards for these devices.

To the extent that BPL will interconnect with the telephone network,³ the Commission must require prospective BPL providers to demonstrate that this interconnection will not endanger ILEC services, facilities, or technicians. The Commission should also require a complete physical separation of the BPL service from its underlying transmission facilities before handing off the signal to an ILEC, or to the inside telephone wiring at a customer's

² It may indeed be necessary to revise the standards governing the placement of facilities on utility poles.

³ *E.g.*, to have the ILEC act as a transit carrier between a BPL provider and an Internet service provider, or to provide telephone service via the Internet.

premises. To do anything less would endanger customers and ILEC technicians, who are not ordinarily trained or certified as electricians.

In addition to safety concerns, BPL could interfere with the services of other providers, both in their networks and within the individual premises receiving BPL service. Not knowing the specific deployment configuration(s) of BPL, Qwest cannot properly assess the scope or magnitude of these concerns. Qwest is cognizant of the fact, however, that telephone lines at a customer's premises run close to the electrical wiring. Absent appropriate shielding, this proximity could easily give rise to crosstalk or other interference.

Again, the Commission should require potential BPL providers to set forth how they propose to provide the service and furnish technical documentation demonstrating that they have taken all necessary steps to prevent such interference. This documentation must be made available to all interested parties, so they can satisfy themselves and the Commission that their services are adequately protected. Moreover, because we are here dealing with the deployment of a new technology with potentially negative impacts on existing, essential networks, Qwest believes the Commission will need to impose rules governing the design of BPL service as a means of protecting critical infrastructure.

II. THE COMMISSION SHOULD PROMPTLY CONSIDER THE REGULATORY REGIME TO BE APPLICABLE TO BPL AND THE RAMIFICATIONS OF THAT REGIME.

Before commercial BPL service becomes a reality, the Commission must determine how it will regulate that service. As new entrants in the broadband market, BPL providers will lack immediate market power there. But the likely BPL providers -- electric utilities -- have a monopoly in their principal business, the distribution of electric power. And that creates the potential for the leveraging of that monopoly to benefit BPL

service in the highly competitive broadband market segment. Specifically, the Commission will need to implement accounting controls to ensure that BPL service is not improperly subsidized by the electric distribution services of its providers.

Moreover, the regulatory regime imposed on BPL could raise related issues. For example, competitive local exchange carriers (“CLECs”) currently have no obligation to make pole attachments available to ILECs. If BPL providers were to be treated as CLECs for regulatory purposes, the Commission would need to ensure that ILECs are not thereby displaced from existing pole-attachment arrangements with electric utilities.

III. THE ADVENT OF BPL SERVICE PROVIDES FURTHER PROOF OF THE NEED TO GRANT NON-DOMINANT TREATMENT TO THE ILECS’ PROVISION OF BROADBAND SERVICES AND NOT TO APPLY THE COMPUTER II/III RULES TO THE TRANSMISSION COMPONENT OF BUNDLED DSL SERVICES.

Under the Commission’s existing regulatory regime, only those carriers deemed to be dominant are subject to tariff regulation. To be considered dominant, a carrier must possess individual market power in the relevant product and geographic markets. While Qwest disputes arguments that it possesses market power, it believes the ILECs’ status as incumbents should not carry over to their provision of broadband services.

In prior proceedings,⁴ Qwest has demonstrated the highly competitive nature of both the mass market and the large-business market for broadband services. In the mass broadband market, the ILECs’ DSL services face substantial competition from cable modem, wireless and satellite providers, who serve significantly more broadband customers than the ILECs do. In particular, cable modem service -- which the Commission does not regulate -- has captured the lion’s share of the mass market for broadband services.

⁴ See, e.g., Comments of Qwest Communications International Inc., CC Docket No. 01-337, filed Mar. 1, 2002.

The disparity is even greater in the business market, where large, sophisticated customers procure customized ATM, frame relay and Gigabit Ethernet services from a variety of suppliers, most of whom are not regulated as dominant carriers. Large interexchange carriers, such as AT&T and WorldCom, serve the vast majority of frame relay and ATM customers. Because they are regulated as non-dominant, these carriers can tailor their broadband offerings to meet the specific needs of individual large-business customers, while the ILECs are constrained from doing so by the need to file generally-applicable tariffs.⁵

BPL seems likely to secure a niche in at least the broadband mass market, and perhaps in the business market as well, thus providing yet another source of competition to the ILECs' DSL services. Its advent provides yet further reason for the Commission to remove the burdens of tariff regulation from the ILECs' provision of broadband services.

Qwest has also explained in prior filings why the Commission's Computer II/III rules should not apply to the transmission component of the ILECs' bundled DSL offerings.⁶ When adopted, those rules were designed to prevent ILECs from abusing their supposed market power in the transmission component underlying an enhanced service.

Today, however, the ILECs have relatively small shares of the broadband market, and their competitors typically do not utilize ILEC transport facilities to provide broadband service.⁷

⁵ The Bell Operating Companies are further disadvantaged in some states by the interLATA restriction imposed by section 271 of the Communications Act.

⁶ *See, e.g.*, Comments of Qwest Communications International Inc., CC Docket Nos. 02-33, 95-20 and 98-10, filed May 3, 2002 at 21-32.

⁷ In the mass broadband market, some satellite and wireless providers utilize a telephone line to transmit the "upstream" traffic from the subscriber back to the provider. Cable modem service typically operates totally independently of the ILEC network, as do broadband services provided to large businesses.

When BPL enters the market, it will likewise use its own transport facilities and thus will operate independently from the ILEC network, providing a further bulwark against ILEC market power.

CONCLUSION

If the proponents of BPL can satisfactorily address the technical and safety concerns inherent in this service, it will provide yet another supplier in the already-competitive broadband market. The Commission must, however, place the burden on those proponents to demonstrate that they have met those concerns in a fashion that safeguards customers and other service providers without imposing unreasonable burdens on them. For its part, the Commission must determine how to regulate BPL providers. Given their monopolies over the distribution of electric power, these providers must be subject to appropriate accounting safeguards to prevent the inappropriate cross-subsidization of BPL service.

Finally, as Qwest has noted, the prospect of another competitor highlights the need for reform of the regulatory regime to which the ILECs are now subject in their provision of broadband services. The broadband market is already highly competitive: the addition of BPL service to the competitive mix will not change anything in that regard, but it does provide further evidence of the need to level the regulatory playing field between the ILECs and their broadband competitors.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Richard Grozier, do hereby certify that I have caused the foregoing **COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.** to be filed with the FCC via its Electronic Comment Filing System and served via e-mail on Qualex International, Inc.

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